

**JOINT DECLARATION OF
GEORGE S. FORD AND
JOHN D. JACKSON**

ATTACHMENT 1

GEORGE S. FORD, Ph.D.

ADDRESS: MCI WorldCom, Inc.
1801 Pennsylvania Avenue NW
Washington, DC 20006
george.ford@wcom.com

EXPERIENCE:

1996 - Present MCI WORLDCOM CORPORATION

1994 - 1996 FEDERAL COMMUNICATIONS COMMISSION
Economist, Office of the General Counsel, Competition Division
Economist, Cable Services Bureau, Competition Division

1997 - present AUBURN POLICY RESEARCH CENTER, Auburn, Alabama
Affiliated Scholar

EDUCATION: Ph.D., Economics, Auburn University, 1994
B.S., Economics (magna cum laude), Auburn University, 1990.

MEMBERSHIPS: American Economic Association
Southern Economic Association
Phi Kappa Phi
Beta Gamma Sigma

PUBLISHED ARTICLES:

- "Information Costs and Nirvana Revisited: Edwin Chadwick on Nineteenth Century Urban Funeral Markets," with Robert B. Ekelund, Jr. *Journal of Regulatory Economics*, Vol. 12, 1997.
- "Horizontal Concentration and Vertical Integration in the Cable Television Industry" with John D. Jackson. *Review of Industrial Organization*, Vol. 12, 1997.
- "Market Power in Radio Markets: An Empirical Analysis of Local and National Concentration," with Robert B. Ekelund, Jr. and Thomas Koutsky. *Journal of Law and Economics* (August 2000).
- "Is Radio Advertising a Distinct Local Market: An Empirical Analysis," with R. B. Ekelund, Jr. and John D. Jackson. *Review of Industrial Organization*, Vol. 14, 1999.
- "On the Interpretation of Policy Effects from the Estimates of Simultaneous Systems of Equations," with John D. Jackson. *Applied Economics*, Vol. 30, 1998.
- "Opportunities for Local Exchange Competition Are Greatly Exaggerated." *Electric Light & Power*, April 1998.
- "Preserving Free Television? Some Empirical Evidence on the Efficacy of Must Carry," with John D. Jackson. *Journal of Media Economics (Forthcoming Spring 2000)*.
- "TV Advertising, Local Markets and Merger Guidelines: An Empirical Study," with Robert B. Ekelund, Jr. and John D. Jackson. *International Journal of the Economics of Business (Forthcoming)*.

CURRENT RESEARCH PROJECTS:

- "The Fallacy of Regulatory Symmetry: An Economic Analysis of the "Level Playing Field" in Cable TV Franchising Statutes," with Thomas W. Hazlett.
- "Competition between Wireline Networks as Fragmented Duopoly with an Empirical Application to the Cable Television Industry," with T. Randolph Beard.
- "Demand Elasticities for International Message Telephone Service," with John D. Jackson.
- "Re-Regulating the Cable Industry: A Probit Analysis of Competing Interest Groups," with Peter Calcagno and John D. Jackson.
- "Price, Quality, and Consumer Welfare in the Cable Television Industry," with T. Randolph Beard, Robert B. Ekelund, Jr., and Richard P. Saba.
- "Flow Through and Competition in the International Message Telephone Service Market."
- "Discrimination and Minority Ownership in Radio Broadcasting," with Audrey B. Davidson and Barry Hayworth.
- "Competition and Welfare in the Payphone Industry," with T. Randolph Beard, Robert B. Ekelund, and Richard Saba.
- "Concentration and Entry in Radio Format Markets," with Jennifer Kaiser.
- "Access Charge Reductions and Long Distance Rates: A Bootstrap Analysis," with T. Randolph Beard, R. Carter Hill, and Richard P. Saba.
- "Discrimination in Mass Media Advertising? An Empirical Test," with Richard W. Ault and John D. Jackson.
- "Evidence on the Effects of the Dual Review of Mergers in Regulated Industries," with Robert B. Ekelund Jr. and Mark Thornton.
- "Competition and Market Structure in Local Exchange and Long Distance Telecommunications Markets," in the *International Handbook on Telecommunications Economics*, Gary Madden and Scott Savage, eds, (Edward Elgar: 2000).

BOOK REVIEWS, EDITORIALS, and REPORTS:

Welfare Economics and Externalities in an Open Ended Universe: A Modern Austrian Perspective, by Roy E. Cordato. *Southern Economic Journal* (April, 1994).

Toward Competition in Local Telephony, by William J. Baumol and Gregory Sidak. *Southern Economic Journal* (April, 1996).

"Competition Will Decrease Cable Rates: On Curbing Cable Costs," with Audrey B. Davidson. *Business First*, September 6, 1993.

"TKR Cable Not Living Up To Promises To Cut Rates," with Audrey B. Davidson. *The Louisville Cardinal* (September 2, 1993).

"The Cable Television Industry: An Annotated Bibliography" Published and Funded by the *Auburn Utilities Research Center* (Summer 1994).

"A Response to Olbeter and Robinson's 'Breaking the Backbone'," released by MCI Worldcom (August 1999).

"An Economic Analysis of the FCC's Notice of Inquiry on Flat Rate Charges in the Long Distance Industry," filed in CC Docket No. 99-249 (September 1999).

"Further Thoughts on Payphone Compensation," filed in CC Docket No. 96-128 (November 1998).

SELECTED SPEECHES AND PANELS:

Managing the Strategic Impact of Competition Law in Telecoms, IRR, Brussels, Belgium (February 1999).

Telecoms Regulatory Strategy Conference, IRR, London, UK (October 1998).

Interconnection Policy and the Consolidation of Non-Incumbent Demand for Alternative Infrastructure, Vision in Business, Global Interconnection Forum, Barcelona, Spain (September 1998).

Implementing Local Competition: RBOC Long Distance Entry. TeleStrategies Conference (October 8-9, 1996).

Exactly How Inviting are the Waters: Warm, Cold, or Turbulent? 2nd Annual Conference on Developing Competitive Telecommunications Services: Electric Utility Telecommunications Services (July 1997).

Rumors and Realities of Competition in the Telecommunications Industry. IBC USA Conferences Inc. (November 1997).

Network Industries in Transition. 16th Annual Conference of the Center for Research In Regulated Industries at Rutgers University (May 1997).

Rate-Regulation and the New Video Market Power, Lessons From the 1992 Cable Act. Cato Institution Conference (October 1996).

**JOINT DECLARATION OF
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JOHN D. JACKSON**

ATTACHMENT 2

VITA

John Douglas Jackson

PERSONAL

Home Address:	1137 Eagle Circle, Auburn, Alabama 36830
Home Phone:	(334) 821-0806
Business Address:	Department of Economics 212 College of Business Building Auburn University, AL 36849
Business Phone:	(334) 844-2926
Date and Place of Birth:	June 14, 1946, Troy, Alabama
Marital Status:	Married, two children, three grandchildren

EDUCATION

1971-1977	Claremont Graduate School, Claremont, CA Ph.D., Economics, February 1977
1967-1971	University of Texas at Arlington, Arlington, TX M.A., Economics, 1971; B.A., Economics, 1970
1966-1967	Texas Wesleyan College, Fort Worth, TX
1964-1965	University of Texas at Austin, Austin, TX

Ph.D. Dissertation:

Title:	Cost and Output Functions for Local Public Services: Theory and Application
Director:	Professor Colin Wright

ACADEMIC HONORS

B. A. cum laude from UTA. Wall Street Journal Award for Excellence (outstanding student in Economics, UTA, 1970). Graduate Teaching Assistantship, UTA, 1970. John C. Lincoln Institute of Public Finance, Urban Economics, and Urban Land Economics, fellowship, Claremont Graduate School, 1971-1975.

ACADEMIC EXPERIENCE

Professor, Auburn University, September 1989 - present.
 Department Head, Auburn University, September 1988 - December 1990.
 Associate Professor, Auburn University, September 1984 - August 1989.
 Assistant Professor, Louisiana Tech University, July 1981 - July 1984.
 Assistant Professor, Old Dominion University, July 1980 - June 1981.
 Assistant Professor, Auburn University, June 1978 - June 1980.
 Assistant Professor, College of the Holy Cross, September 1976 - May 1978.
 Instructor, College of the Holy Cross, September 1975 - August 1976.
 Instructor, California State University of Los Angeles, March - June 1975.
 Instructor, Chaffey College, Alta Loma, California, March - December 1972.

CONTRACT RESEARCH CONSULTING, AND OTHER RESEARCH EXPERIENCE

Contract Research:

Small grant (with R. Saba) on taxing cigarettes to finance health care, Department of Economics, Auburn University, 1994.

Small grant (with R. Beil) on the role of telecommunications investment in spurring economic growth, Auburn Utilities Research Center, Auburn University, 1994.

Small grant (with D. Gropper) on economic forecasting for electric utilities, Auburn Utilities Research Center, Auburn University, 1993.

Team leader and module author, W. W. Kellogg grant to Auburn University for "Leadership for Economic Development," 1991.

Small grant for research on determinants of real estate sales success for Louisiana Real Estate Commission, 1983 (principle investigator).

Small grant (with K. Ihlanfeldt) on property tax assessment and housing demand for U. S. Department of Housing and Urban Development, 1981 (co-principal investigator).

Small grant (with D. Smyth) on short run employment functions for public utilities, 1972 (research associate).

Consulting:

Consultant: MCIWorldCom (Statistical issues concerning the measurement of state level parity service provision mandated in sections #251 and #271 of the Telecommunications Act of 1996), August 1998 – present.

Consultant: Waycaster, Corn, and Morris, Attorneys-at-Law, Hill, et al. v. ConAgra, Federal Docket # 4:94-CV-1098-HLM (statistical analysis of misweighing of chickens by processor), April 1994 – August 1998.

Consultant: Greg L. Davis, Attorney at Law, Alabama Kennels v. Victoryland, Macon County Dog Track (detection of non-random lane assignments) April 1995 - February 1997

Consultant: Roden, Hayes, Carter, and Sterns, Attorneys at Law, Smith v. Continental Brain and Estes v. Continental Grain (statistical analysis of misweighing of chickens by processor) August 1994 - April 1995.

Consultant and Expert Witness: Pittman and Pittman, Attorneys at Law, Juhola v. West U.S. District Court of Alabama, case #A3T-1232-5 (statistical analysis of survey instrument used in age discrimination, harassment, and reprisal) March 1994 - January 1995.

Consultant: Pittman, Whittaker, and Pittman, Attorneys-at-Law, two cases: one, as a statistical consultant for wrongful termination of a physician case at Ft. Rucker hospital; two, as economic consultant for racial discrimination case at Ft. Rucker, Jan. - Oct. 1993.

Consultant: McDorman and Hayden, Attorneys-at-Law, Federal Docket #90-4273-CV-9 (economic analysis of losses resulting from wrongful termination of a contract), 1993 - 1994.

Consultant and expert witness: Steel, Hector, and Davis, Attorneys-at-Law, Federal Docket #89-213-CIV-J-16 (statistical analysis of misweighing of chickens by processors), 1990 - August 1995.

Consultant and expert witness: Pittman, Whittaker, and Pittman, Attorneys-at-Law, Federal class action suit, A.R. Braswell, et al. vs. Conagra, Inc. (case # CA-88-T-741-S,

U.S. District Court of Alabama, Middle district, Southern division), (statistical analysis at misweighing of chickens by processors), 1988 - 1991.

Consultant: Center for Government Studies, Auburn University (research on grant concerning the effect of severance tax legislation), 1985.

Consultant: Sharp and McVea, Attorneys-at-Law, Webster Parrish Civil Docket # 41,146 (expert witness on value of name to clothing store), 1983.

Consultant: James and Hogg, Attorneys-at-Law, Lincoln Parish Docket # 32,978 (expert witness on utility rate setting), 1983.

Consultant: Lincoln Bank and Trust Co., Ruston, LA (designed management incentive plan for monitoring performance), 1982.

Consultant: South Central Bell Telephone Co., Alabama Public Service Commission Docket # 17,743 (econometric expert on estimating the demand for intrastate message toll service), 1980.

Other Research Experience:

Research Assistant, John C. Lincoln Institute, Claremont Graduate School (zoning research), Summer 1974.

Research Assistant, John C. Lincoln Institute, Claremont Graduate School (land use planning), Summer 1972.

Masters Thesis (directed by W. Mullendore); Public Housing: An Econometric Analysis of a Publicly Provided Good, August, 1971.

TEACHING/RESEARCH INTERESTS

General Areas:

Econometrics (especially Applied Econometrics) and Statistics, Macroeconomic Theory, Microeconomic Theory (applied).

Specific Fields:

Urban Economics, Regional Economics, Public Finance, State and Local Finance, and Economic Forecasting.

Courses Taught:

Macroeconomics (graduate level), Microeconomics (graduate level), Econometrics (graduate level), Seminar in Advanced Econometrics (doctoral field level), Introductory Statistics, Mathematical Economics, Economics for the Citizen, Principles of Macroeconomics, Principles of Microeconomics, Intermediate Microeconomic Theory, Intermediate Macroeconomic Theory, Urban Economics, Regional Economics (undergraduate and graduate level), State and Local Finance, Public Finance, Government and Business, Economic Forecasting.

Doctoral Examining Committees:

Macroeconomics (core), Econometrics (core), Econometrics (field), and departmental representative to Agricultural Economics Examining Committee.

REFEREED PUBLICATIONS

“State Lotteries, Isolation, and Economic Growth in the U.S.” (with D. Walker) forthcoming in Review of Urban and Rural Development Studies (November 1999)

“Preserving Free Television: Some Empirical Evidence on the Efficacy of Must Carry” (with G. Ford) forthcoming in Journal of Media Economics.

“Are Local TV Markets Separate Markets?” (with R.B. Ekelund and G.S. Ford) forthcoming in International Journal of the Economics of Business.

“Public Policy, Perverse Incentives, and the Homeless Problem ” (with W. H. Troutman and R. B. Ekelund), Public Choice vol. 98, no.2 (1999) pp.195-212..

“Is Radio Advertising a Distinct Local Market? An Empirical Analysis” (with R.Ekelund and G. Ford), Review of Industrial Organization, Vol. 14. No. 3. (May 1999) pp. 239-56.

"New Goods and Economic Growth: Evidence from Legalized Gambling" (with D. Walker), Review of Regional Studies, vol.28.no.2 (Winter,1998) pp.47-69.

“Political Action Committee Spending and Senate Roll “Call Voting” (with P. Calcagno) Public Choice vol.97, no.4 (December 1998) pp.569-85.

“On the Interpretation of Policy Effects from Estimates of Simultaneous Systems of Equations” (with G. Ford), Applied Economics, vol. 30 (1998), pp. 995-99.

"Robustness of Health Information and Generic Advertising Effects to Sample Updating: U.S. Meats" (with H. Xiao, C. Hsia, and H. Kinnucan), American Journal of Agricultural Economics vol. 79 (February 1997), pp. 13 - 23.

"Horizontal Concentration and Vertical Integration in Cable Television Industry" (with G. Ford). The Review of Industrial Organization, vol. 12 , 1997, pp.501-18

"Some Limits on Taxing Sin: Cigarette Taxation and Health Care Finance" (with R. Saba). Southern Economic Journal , vol. 63, no. 3 (January 1997) pp. 761-75

"Evaluation of the Possible Threat of NAFTA on U.S. Catfish Industry Using a Traditional Import Demand Function,"(with A. Ligeon and C. Jolly) Journal of Food Distribution Research (July 1996), pp. 33-41.

"A Note on Odds in the Cattle Futures Market" (with S. Anderson and J. Steagall) Journal of Economics and Finance Vol. 18 (Fall 1994), pp. 357-65; 700 word abstract published in the National Review Vol. 47, no. 3 (Feb. 20, 1995), pp. 45.

"Instant Winners: Legal Change in Transition and the Diffusion of State Lotteries" (with D. Saurman and W. Shughart), Public Choice, Vol. 80 (1994), pp. 245-263.

"The Effects of Long Term Rent Control on Tenant Mobility" (with R. Ault and R. Saba), Journal of Urban Economics, Vol. 35 (1994), pp. 140-158.

"Competition and the Price of Municipal Cable Television Services" (with R. Beil, T. Dazzio, and R. Ekelund), Journal of Regulatory Economics, Vol. 6 (1993), pp. 401-415.

"Heteroscedasticity and Group Data Regression" (with S. Caudill), Southern Economic Journal, Vol. 60, no. 1 (July 1993), pp. 128-35.

"Gender Differences in Salaries: An Application to Academe" (with J. T. Lindley and M. Fish), Southern Economic Journal, Vol. 59, No. 2 (October 1992), pp. 241-59.

"Gender Differences in the Opportunity to Advance of Business School Graduates" (with E. Jones), Journal of Socioeconomics, Vol. 21, No. 2 (Summer 1992).

"Smoking and Absenteeism" (with R. Ekelund, R. Ault, R. Saba, and D. Saurman), Applied Economics, Vol. 23 (1991), pp. 743-54.

"College Grades and Labor Market Rewards" (with Ethel Jones), Journal of Human Resources, Vol. 25, No. 2 (Spring 1990), pp. 253-266.

"Measuring Marginal Effects in Limited Dependent Variable Models" (with S. Caudill), The Statistician, Vol. 38 (1989), pp. 203-206.

"Job Search Duration and Marginal Tax Rates: An Empirical Inquiry" (with A. Barnett and S. Caudill), Southern Economic Journal, Vol. 56, No. 2 (October 1989), pp. 476-489.

"On The Use and Interchangeability of Stock Market Indices" (with J. Dunlevy and J. Lunn), The Review of Business and Economic Research, Vol. 25 (1) (Fall 1989), pp. 19-34.

"Some Caveats on 'The Impact of Cigarette Advertising on Aggregate Demand for Cigarettes in New Zealand'" (with R. Ekelund), British Journal of Addiction, Vol. 84 (1989), pp. 1247-1250.

"Measuring the Extent of Wage Discrimination: A Statistical Test and a Caveat" (with J. T. Lindley), Applied Economics, Vol. 21, No. 4 (April 1989), pp. 515-540.

"A Statistical Approach to Modelling the Behavior of Bond Raters" (With J. Boyd), Journal of Behavioral Economics, Vol. 17, No. 3 (August 1988).

"Orthogonal Least Squares and the Interchangeability of Alternative Proxy Variables in the Social Sciences" (with J. Dunlevy), The Statistician Vol. 37 (1988), pp. 7-14.

"Testing for Changes in Bond Rating Determinants Over Time" (with J. Boyd), Akron Business and Economic Review (Summer 1988), pp. 39-57.

"Testing for Model Specification Errors in Income Distribution Research" (with M. Hartly and T. Sale), Papers and Proceedings of the Southeast Decision Science Institute (February 1988), pp. 99-101.

"A Comparison of Inflationary Effects on Bond Rating Models Using Probit Analysis" (with P. Balsmeier and C. Jones), Journal of Business and Economic Perspectives (Fall 1987).

"The Asset Allocation Decision Using Readily Available Economic Data" (with B. Stine and T. Sale), Monograph #24 (Financial Analysis Research Foundation: Charlottesville, VA, 1987).

"Systematic Assessment Error and Property Tax Capitalization: Reply" (with K. Inlandfeldt), Southern Economic Journal (January 1986), pp. 836-842.

"An Empirical Analysis of Tenant Selection Under Federal Rent Supplement Programs: A First Step" (with C. Jones and P. P. Balsmeier), AREUEA Journal (Spring 1986) pp. 72-90.

"On the Relative Performance of Registered vs. Non-Registered Mutual Funds" (with S. Skomp), Southern Economic Journal (October 1985) pp. 392-401.

"Specifying Differential Cyclical Response in Economic Time Series: Capacity Utilization and the Demand for Imports" (with D. J. Smyth), Economic Modelling, vol. 2, no. 2. (April 1985) pp. 149-61.

"Personnel Professionals View Accreditation" (with G. Bayley and J. Johnston), Personnel Journal Vol. 63, No. 7 (July, 1984), pp. 58-62.

"Racial Discrimination in the Use of Financial Services" (with J. Lindley and E. Selby), American Economic Review Vol. 74, no. 4 (Sept. 1984) pp. 735-41.

"Women, Household Factors and Job Satisfaction" (with E. Jones), IRRA Papers and Proceedings (Spring 1983) pp. 73-80.

"A Probit Analysis of Tenant Selection in Federally Subsidized Housing" (with P. Balsmeier and C. Jones), Papers and Proceedings of Southwest AIDS, (March 1983) pp. 137-39, (voted outstanding paper presented in the Public Administration track; abstract published in Decision Line, vol. 14, no. 4, 1983, p. 3).

"Testing Behavioral Hypotheses in Bond Rating Models" (with P. Balsmeier), National AIDS Papers and Proceedings, (Nov. 1983) pp. 85-88.

"Interchanging Measures of Firm Size: An Asymptotic Test Further Results" (with J. Dunlevy), Southern Economic Journal, vol. 48, no. 3, (Jan. 1982) pp. 764-68.

"The National Debt Controversy: A Reply" (with R. Holcombe and A. Zardkoohi), Kyklos, vol. 35, Fasc. 4, 1982, pp. 99-102.

"Systematic Assessment Error and Intrajurisdiction Property Tax Capitalization" (with K. Ihlanfeldt), Southern Economic Journal, vol. 49, no. 2, (Oct. 1982), pp. 417-427.

"The Interchangeability of Alternative Measures of Permanent Income in Regression Analysis" (with J. Dunlevy), Applied Economics, Vol. 14 (1982), pp. 455-468.

"The Orthogonal Least Squares Slope Estimator: Interval Estimation and Hypothesis Testing Under the Assumption of Bivariate Normality" (with J. Dunlevy), Proceedings of the American Statistical Association: Business and Economics Statistics Section (1981), pp. 294-297.

"The National Debt Controversy" (with R. Holcombe and A. Zardkoohi), Kyklos, Vol. 34 (1981) (fasc. 2), pp. 186-202.

"A Note on Model Comparison Under a First-order Autoregressive Transformation Using the Residual Variance Criterion" (with D. J. Smyth), Sankhya: The Indian Journal of Statistics, Vol. 42, series D, pts. 1&2 (1980), pp. 24-31.

"A Theoretical and Empirical Analysis of Ratchet Models as Alternatives to Permanent Income and Continuous Habit Formation Consumption Functions" (with D. J. Smyth), Journal of Economics and Business, Vol. 30 (Winter 1978), pp. 89-97.

"Economies of Scale and Optimal City Size: A Methodological Comment and Further Results" (with G. McDougall), Journal of Economics, Vol. 3 (1977).

RESEARCH IN PROGRESS

Completed Papers Under Revision:

"Occupational Licensing of a Competitive Industry: The Case of Cosmetology" (with F. Adams and R. Ekelund).

"On the Relationship Between Telecommunications Investment and Economic Growth" (with R. Beil).

"Third Country News, Market Efficiency, and the Monetary View of the Exchange Rate" (with Z. Zheng and H. Thompson).

"Reregulating the Cable Industry: A Probit Analysis of Competing Interest Groups" (with P. Calcagno and G. Ford)

"The Effects of Deregulation on the Number of Intrastate Trucks" (with S. Kahai).

Working Papers in Progress:

"Measuring Expectations and Market Efficiency in the Monetary View of the Exchange Rate" (with Z. Zheng).

"The Specification of 'News' in the Monetary View of the Exchange Rate" (with Z. Zheng)

"The Agency Cost of Debt" (with J. Boyd).

PAPERS PRESENTED AT CONFERENCES

"Casino Gambling and State Economic Growth: Some Results From Granger Causality" (with D. Walker). Presented at the Southern Economic Association meetings (Atlanta, November 1998)

"The Effects of Deregulation on the Number of Intrastate Trucks" (with S. Kahai). Presented at the Southern Economic Association meetings (Atlanta, November 1998)

"Reregulating the Cable Industry: A Probit Analysis of Competing Interest Groups" (with P. Calcagno and G. Ford) Presented at the Public Choice Society Meetings (San Francisco, March 1997)

"Concentration and Programming Costs in the Cable TV Industry" (with G. Ford) presented at the Southern Economic Association meetings (New Orleans, November 1995).

"Competition, Firm Size, and the Pricing of Cable Television Services" (with G. Ford), presented at the Southern Economics Association meetings (New Orleans, November 1993).

"Homelessness and Housing Policy: An Extension of the Honig-Filer Analysis" (with H. Troutman and R. B. Ekelund), presented at the Southern Economic Association meetings (New Orleans, November 1993).

"The North-South Differential in Federal Grant and Contract Funding to Higher Education" (with E. Jones and R. Ressler), presented at the Southern Economics Association Meetings (Washington, DC, November 1992).

"Specification Error and the St. Louis Equation" (with K. Upadhyaya), presented at the Southern Economic Association Meetings (New Orleans, November 1990).

"Some Revenue Consequences of the Koop Doctrine: Forecasts of Tax Revenue Losses to the Various States in a Smokeless Society," presented at the Southern Economic Association Meetings (New Orleans, November 1990).

"Bond Ratings and Inside Ownership: An Empirical Study" (with J. Boyd), presented at the Eastern Finance Association Meetings (Charleston, April 4, 1990).

"The Economic Consequences of the Koop Doctrine," presented at the Southern Economic Association Meetings (Orlando, November 20, 1989).

"Gender Differences in the Opportunity to Advance of Business School Graduates" (with E. Jones), presented at the Southern Economic Association Meetings (Orlando, November 20, 1989).

"Instant Winners: Legal Change in Transition and Diffusion of State Lotteries" (with D. Saurman and W. Shughart), presented at the Public Choice Society Meetings (San Francisco, March, 1988).

"On the Appropriateness of Pooling Industrials and Utilities in Bond Rating Models" (with J. Boyd), presented at the Eastern Finance Association Meetings (Orlando, March 1988).

"Instant Winners: Legal Change in Transition and the Diffusion of State Lotteries" (with D. Saurman and W. Shughart), presented at the Southern Economic Association Meetings (Washington, DC, November 1987).

"Estimating the Determinants of Job Search: A Frontier-Tobit Approach" (with A. Barnett), presented at the Southern Economic Association Meetings (Washington, DC, November 1987).

"An Empirical Investigation of Income Concentration in the South: 1950-1980" (with M. Hartley and T. Sale), presented at the Southern Regional Science Association Meetings (Atlanta, March 1987).

"Testing for Changes in Bond Rating Determinants Over Time" (with J. Boyd), presented at the Midwest Finance Association Meetings (St. Louis, March 1987).

"Marginal Tax Rates, Job Search Duration and Unemployment" (with A. Barnett), presented at the Southern Economics Association Meetings (New Orleans, November 1986).

"Scalar Economies and Service Consolidation," presented at the Southwestern Social Science Association Meetings (San Antonio, March 1986).

"Forecasting Future States of the Stock Market: A Probabilistic Approach to the Asset Allocation Decision" (with B. Stine), presented at the Southern Economic Association Meetings (Dallas, November 1985).

"Temporal Stability of the Determinants of Bond Ratings" (with C. Jones and P. Balsmeier), presented at SWFAD Meetings (New Orleans, March 1984).

"Relative Accuracy in the Assessment of Bond Quality: Statistical Models vs. Rating Agencies" (with H. Billici and J. Boyd), presented at the Annual Meetings of the Financial Management Association (Toronto, October 1984).

"Testing Behavioral Hypotheses in Bond Rating Models" (with P. Balsmeier), presented at the National AIDS Meetings (San Antonio, November 1983).

"On the Empirical Measurement of Discrimination: A Statistical Test and a Caveat" (with J. Lindley), presented at the Southern Economics Association Meetings (Washington, DC, November 1983).

"Model Specification in the Statistical Analysis of Bond Ratings" (with J. Boyd), presented at the Southern Finance Association Meetings (Washington, DC, November 1983).

"Women, Household Factors, and Job Satisfaction" (with E. Jones), presented at the Industrial Relations Research Association Meetings (San Francisco, December 1983).

"A Probit Analysis of Tenant Selection in Federally Subsidized Housing" (with P. Balsmeier and C. Jones), presented at the Southwestern AIDS Meeting (Houston, March 1983).

"Analyzing Industrial Bond Ratings: An N-Chotomous Probit Approach" (with R. Saba), presented at the Southern Finance Association Meetings (Atlanta, November 1982).

"Specifying Differential Cyclical Response in Economic Time Series: Capacity Utilization and the Demand for Imports" (with D. Smyth and G. Davidson), presented at the Southern Economic Association Meetings (Atlanta, November 1982).

"Economies of Scale and Public Service Consolidation: The Case of Publicly Provided Fire Protection" (with S. Duh), presented at the Southwest Federation of Administrative Disciplines Meetings (Dallas, March 1982).

"Systematic Assessment Error and Intrajurisdiction Property Tax Capitalization" (with K. Ihlanfeldt), presented at the Southern Regional Science Association Meetings (Washington, April 1981).

"On Testing Behavioral Hypotheses in N-Chotomous Probit Analysis" (with R. Saba), presented at the Southwest Federation of Administrative Disciplines Meetings (New Orleans, March 1981).

"The National Debt Controversy" (with R. Holcombe and A. Zardkoohi), presented at the Southern Economics Association Meetings (Washington, DC, November 1979).

"Economies of Scale and Optimal City Size: A Methodological Comment and Further Results" (with G. McDougall), presented at the Missouri Valley Economics Association Meetings (Tulsa, February 1977).

"Production Functions for Local Public Services," presented at the Western Economics Association Meetings (San Diego, June 1975).

"Ratchets, Permanent Income, and Continuous Habit Formation: Empirical Evidence on the Consumption Function" (with D. J. Smyth), presented at the Econometric Society Meetings (San Francisco, December 1974).

"Economies of Scale in the Provision of Local Public Services" (with G. McDougall and C. Wright), presented at the Western Economics Association Meetings (Las Vegas, June 1974).

DISSERTATION AND THESIS COMMITTEES

Dissertations Directed:

"The Economics of Prohibition" (Mark Thornton -- completed 1989) (chair).

"The Impact of Deregulation and Deposit Insurance on the Thrift Industry" (John McCallie -- completed 1990) (co-chair with R. B. Ekelund).

"Money, Prices, Growth, and the Balance of Payments in Nepal" (Kamal Upadhyaya -- completed, summer 1993) (co-chair with H. Thompson).

"Agency Implications of Inside Ownership and the Thrift Crisis: an Empirical Analysis" (Linda Hadley -- completed 1993) (co-chair with R. B. Ekelund).

"The Specification and Identification of 'News' in the Monetary View of Exchange Rate Determination" (Zhenwu Zheng completed, 1994).

"Competition in the Cable TV Industry" (George Ford completed, 1994) (co-chair with R. B. Ekelund).

"The Role of Banking in Jordanian Economic Development" (Gus Iffram, completed 1997) (co-chair with R. B. Ekelund).

"State Competition and the Effects of Direct Financial Incentives on Business Climate" (Peter Calcagno, completed 1997). (co-chair with H. Thompson).

"Sin and Growth: Legalizing Gambling as a Means of State Economic Growth" (Douglas Walker, completed Summer 1997) (co-chair with R. B. Ekelund).

Dissertation Committees:

"Market Tiers and Systematic Risk" (Hamdi Bilici -- completed 1983).

"Asset Allocation and Macroeconomic Variables: A Probabilistic Integration" (Bert Stine -- completed 1984).

"Catfish Pond Harvesting, Pollution Control, and Costs for West Alabama" (Hussein Hebicha -- completed 1989).

"The Effect of Advertising on Milk Prices and Output in Canada" (Evelyn Beleza -- completed 1991).

"Stability and Trend in the Determinants of Union Membership" (Terry Ashley -- completed 1991).

"Privatization and Economic Development in Sri Lanka: Three Essays" (Manisha Perera -- completed 1991).

"The Economics of Advertising: Issues Relating to Goods-Buyer Characteristics and Non-Price Vertical Restraints" (Frank Mixon -- completed 1992).

"Production and Marketing Constraints in the Supply of Commercially Grown Catfish" (Surajadeen Olowolayemo -- completed 1993) (outside reader).

"The Economic Modeling of Higher Education" (Rand Ressler -- completed 1993).

"Cholesterol Information and the Demand for Meat in Taiwan" (C. J. Hsia -- completed 1993).

"Three Essays on the Economics of Long-Distance Telecommunication" (Simran Kahai -- completed Fall 1995).

"Aggregate Investment Behavior in the U.S. Farm Sector" (Tian-Jin Pan -- completed 1995).

"The Impact of CON's on Health Care Delivery: The Case of Kidney Dialysis" (Jon Ford completed 1996).

"The Effect of the Waxman-Hatch Act of 1984 on R&D Expenditures in the Pharmaceutical Industry" (Dwight Nystrom -- completed Spring 1996.)

"Alcohol and Public Policy: The Economics of Sin" (Paula Gant -- completed 1996).

"The Economics of Occupational Licensing" (A. Frank Adams -- completed 1996).

"Three Essays on the Effects of Agricultural Export Promotion Programs" (Hui Xiao -- completed 1997).

"A Microeconomic Analysis of Issues in Cultural Economic" (Shawn Rittenour -- completed 1997).

"From Franchise to State Commission: Regulation of the Electric Industry, 1902 - 1937"(Keith Reuter -- completed Fall 1997)

"Essays on the Economics of Slavery" (Mark A. Yanochik -- completed Winter 1998.)

"Exports and Economic Growth in Thailand" (Srisuda Thungsuwan -- completed Fall 1998.)

"Empirical Methods in Antitrust Economics: Survey and New Techniques"(John S. Thompson, completed Fall 1998).

Masters Theses Directed:

"A Disequilibrium Model of the Retail Gasoline Market" (L. Belcher -- completed 1979).

"Economies of Scale and the Form of the Cost Function for Publicly Provided Fire Protection" (S. Duh -- completed 1980).

"Economies of Scale and the Form of the Cost Function for Police Protection" (S. Martello -- completed 1994).

"Sports news and its Effect on the Return to Nike, Inc. Stock: An Event Study" (Russell J. Nuzzo completed , 1998).

Masters Thesis Committees:

Books Lide, completed 1985.

Manisha Perera, completed 1987.

Siriratana Areechon, completed 1989.

Lai Kam Lieng, completed 1989.

T. Bart Smith, completed 1989.

Lesley Sanderson, completed 1989.

Frank Mixon, completed 1990.

Tim Justice, completed 1990.

James Tillery, completed 1991.

Michele McKeever, completed 1991.

David Brown, completed 1991.

Thomas Dazzio, completed 1992.

Harris Troutman, completed 1993.

Murli Buluswar, completed 1994.

Scot Edwards, completed 1997.

Chetly Weise, completed, 1998

MBA Committees:

Participated on seven MBA committees while at Auburn University (1978-1980).

Internships Directed:

Directed four local and two Washington student internships while at Holy Cross.

OTHER PROFESSIONAL ACTIVITY

Occasional Referee for:

Public Choice
Southern Economic Journal
Journal of Macroeconomics
Applied Economics
Journal of Advanced Transportation
Journal of Industrial Economics
Journal of Economics and Finance

Occasional Textbook Reviewer for:

West Publishing
 Longman Publishing
 Allyn and Bacon Publishing
 Macmillan Publishing

PROFESSIONAL MEMBERSHIPS

American Economics Association
 Southern Economics Association
 Omicron Delta Epsilon (honor-economics)

ACADEMIC REFERENCES

Robert B. Ekelund
Department of Economics
Auburn University
Auburn, AL 36849

James T. Lindley
Department of Finance
University of Southern Mississippi
Hattiesburg, MS 39406

Robert F. Hebert
Department of Economics
Auburn University
Auburn, AL 36849

**JOINT DECLARATION OF
GEORGE S. FORD AND
JOHN D. JACKSON**

ATTACHMENT 3



**MCI Telecommunications
Corporation**

1801 Pennsylvania Avenue, NW
Washington, DC 20006
202 887 2380
FAX 202 887 3175
VNET 220 2380
2181493@MCIMAIL.COM
MCI Mail ID 218-1493

Karen T. Reidy
Attorney
Federal Law and Public Policy

6/3/99
RECEIPT

June 3, 1999

VIA HAND DELIVERY

Ms. Magalie Roman Salas, Secretary
Federal Communications Commission
Office of the Secretary - Room TWB-204
445 Twelfth Street, SW
Washington, DC 20554

RECEIVED

JUN 3 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

file
Re: Ex Parte: CC Docket Nos. 98-121 and 98-56

Dear Ms. Salas:

On June 2, 1999, I faxed the attached letter and proposal to Michael Pryor, of the Common Carrier Bureau's Policy and Program Planning Division on behalf of MCI WorldCom and AT&T. Please include this filing in the record of the above-referenced proceedings.

Two copies of this Notice are being submitted in accordance with Section 1.1206 of the Commission's rules.

Sincerely,

Karen T. Reidy

Karen T. Reidy

Attachments

cc: Michael Pryor
Frank Simone, AT&T



**MCI Telecommunications
Corporation**

1501 Pennsylvania Avenue, NW
Washington, DC 20006
202 387 2380
FAX 202 387 3175
VNET 220 2380
2181493@MCI MAIL.COM
MCI Mail ID 218-1493

Karen T. Reidy
Attorney
Federal Law and Public Policy

June 2, 1999

Michael Pryor
Policy and Program Planning Division
Common Carrier Bureau
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Dear Michael:

As you requested, attached is a performance remedies proposal prepared by AT&T and MCI WorldCom. The objective of this proposal is to ensure that prior to a grant of section 271 authorization for any state, there must be a remedy plan in place that provides a sufficient financial incentive for the Bell Operating Company ("BOC") to provide nondiscriminatory and commercial quality service to CLECs.

The Tiered Approach to Remedies

The tiered approach outlined in the attached proposal (1) ties the amount of the remedy to the magnitude and duration of the violation, and (2) takes into account the effect of an ILEC's poor service on the development of local competition.

Baseline Remedies. Baseline remedies (paid to the CLEC) are imposed for a failure to provide parity with the service and support the ILEC provides its own retail customers and affiliates, or for a failure to meet an objective benchmark.

Escalation Remedies. As performance deviates farther from the required level, or if a performance failure continues for more than one month, remedies paid to the CLEC should increase accordingly. A statistical methodology should be used to determine when higher remedies should apply for the parity standards. When benchmark standards are missed for several months or by a specified amount, higher remedies are also invoked.¹

Market Suppression Penalties. Aggregate market suppression penalties should supplement remedies paid directly to CLECs. Market suppression penalties apply when performance results for the CLEC industry as a whole show a pattern of substandard

¹ See Attachment A, page 6. Consequences are increased according to (a) the degree of the performance failure (z score range for parity and specific percentage or incident range for benchmarks) and (b) the repetitive nature of the performance failure.

performance. Such consequences would be paid into a government-created fund.² This fund could be used to support independent audits of the ILEC's performance or for some other purpose for which the ILEC would not receive a direct benefit (e.g., the fund should not be used for universal service support that would go to the ILEC). To determine whether market suppression penalties would apply, results for parity and benchmark violations are calculated using data aggregated for the CLEC industry as a whole. Performance data regarding any affiliate of the ILEC would not, of course, be included in the CLEC industry data, regardless of its certification as a CLEC; otherwise a BOC could distort its industry results with superior service to its affiliate.

In-region long distance authority should not be granted if the performance data submitted to support a 271 application would subject the applicant to a market suppression penalty. However, the fact that performance is not so poor as to justify a market suppression penalty does not demonstrate section 271 compliance.

Results of the Statistical Methodology (Use of the "Modified Z" Score)

For the parity standards,³ the Local Competition Users Group (LCUG) "modified z score" should be used. The critical value of the modified z score allows conclusions to be drawn, at a preset level of error risk, regarding whether the performance delivered to the CLEC was at parity with that experienced by the ILEC (or any affiliate of the ILEC). Based upon data currently available to CLECs, if the critical value is -1.04,⁴ the risk of an erroneous "out of parity" conclusion is balanced with the risk of an erroneous conclusion that parity exists. Because a statistical test is employed, a limited number of performance failures will be tolerated before any consequences are applied.

If, however, a more conservative critical value of -1.645 is employed, as advocated by some parties, the Commission should recognize that the risk of erroneous conclusions of non-parity (also called Type I errors) is very low, only 5%. But the risk of undetected instances of non-parity (also called Type II errors) is much higher, nearly 15%. If -1.645 were set as the critical value, no minimum number of misses should be allowed; rather, each instance of a modified z score worse than the critical value should result in a monetary consequence.

"Weighting" of the Metrics

AT&T and MCI WorldCom believe that "weighting" of metrics is inappropriate because it permits an ILEC to engage in strategic, targeted discrimination. However, if

² Such a fund would supplement, not supplant, remedies paid directly to CLECs for various harms related to the disparate treatment. Such payments would add to the deterrent effect of the remedies without raising concerns about undue enrichment for CLECs.

³ In this context, a parity standard is employed when the ILEC provides data for a reasonably analogous retail operation so as to permit a direct comparison, through statistical techniques, of the CLEC and ILEC results.

⁴ Generally, results less favorable to the CLEC are represented by a negative number. In some cases, depending on whether success or failure is measured, the critical value may be expressed as a positive number that reflects worse performance for the CLEC than ILEC. (For example, "out of service greater than 24 hours" or "out of service less than 24 hours" would have different meanings for positive and negative z scores.)

the Commission seeks further gradation in the applicable remedies structure. AT&T and MCI WorldCom suggest that the metrics be divided into two categories: (1) ***Immediate Customer and Competition Affecting***; and (2) ***Lagging Customer and Competition Affecting***. Immediate Customer and Competition Affecting measures carry a higher (for example \$30,000⁵) remedy per submetric. Lagging Customer and Competition Affecting measures would carry a lower (for example, \$20,000) remedy per sub metric.

AT&T and MCI WorldCom do not endorse a "credit" remedy format because it would not have the same financial impact on the ILEC as monies directly paid to the CLEC each month. In addition, a credit format allows ILEC gaming; ILECs can engage in targeted performance variation and performance failures that impede competition and harm CLECs without triggering any consequences (through credit offsets for "good" performance).

Caps on ILEC Liability

AT&T and MCI WorldCom oppose setting a maximum liability or "cap" on the amount for which the ILEC may be liable. The per measure caps Bell Atlantic proposed in New York, for example, would have the perverse effect of reducing remedies for all types of ILEC interfaces whenever a new interface (or query type) is added to those being measured. Uncertainty of the maximum amount of exposure discourages strategic discrimination by the ILEC and presents it with a greater incentive to provide the requisite support.

It is important to remember that the ILEC can avoid any payment by providing competition-sustaining performance. Without a maximum liability cap, the ILEC cannot weigh the cost of corrective action or the cost of lost market share against its maximum exposure in a remedy system. Nevertheless, this proposal accommodates a "trigger" for automatic regulatory review if remedies to any particular CLEC in a month exceed a pre-set amount.

Disaggregation of Measures

The proposal identifies measures for which violations automatically should call for remedies. It is essential to note that ILEC reporting of these measures must be at sufficiently disaggregated levels to enable CLECs and regulators to compare retail to wholesale performance fairly. Reporting at a high level of aggregation allows an ILEC to mask inferior performance. This masking occurs because fundamentally different performance conditions are averaged into a single result. Averaging of dissimilar situations produces increased measurement variance which, in turn, makes detection of non-parity performance more difficult (i.e., the difference in performance must be larger before a failure is declared).⁶ Attachment A of the LCUG Service Quality Measurements

⁵ The baseline remedies would need to be reevaluated periodically as to their deterrent effect. At some point, the recommended consequences may not even exceed the ILEC's bill to the CLEC for the substandard service. In all cases, the amount of the remedy must remain significant enough to deter the ILEC from discriminating against the more successful CLECs (those most threatening to its local revenues).

⁶ Although the ILEC may assert that the disaggregation is burdensome, statistical test procedures can be employed to identify where further disaggregation would not be explanatory of

Version 7 document discusses in detail the disaggregation that is necessary to monitor ILEC performance adequately. The attached proposal also provides some examples of critical levels of disaggregation, such as reporting resale and UNE-P separately, and separating xDSL loops from other loops. CLECs may not yet be generating results at the maximum level of disaggregation, but such disaggregation is ultimately necessary to discourage any ILEC discrimination that may be aimed at a specific market entry plan. For instance, an ILEC grouping ISDN and DSL loops together could discriminate against a CLEC's DSL-focused market plan without triggering any remedies or regulatory review.

Section 271 Denial/Revocation

In no case should section 271 approval be granted when the data relied upon by a BOC shows discriminatory performance, whether for an individual CLEC or all CLECs in the aggregate. Following any grant of section 271 authorization, discriminatory performance should be a sufficient basis for considering prompt revocation of a BOC's section 271 authority. Further, repeated or broad failure of measures that fall under the *Immediate Customer and Competition Affecting* category, to the extent such a category is established, may indicate an overall market suppressing behavior and therefore should be closely examined by regulators. *Lagging Customer and Competition Affecting* measurements may also, if missed in sufficient quantity or levels of magnitude and duration, warrant a finding that a BOC is not in compliance with 271 obligations.

Because section 271 relief has such far-reaching implications, the BOC must demonstrate sustained stable performance, and it should also be capable of performing in a nondiscriminatory manner at volumes reflective of a fully competitive local market. Stable performance requires at a minimum that

- (1) Each performance measurement demonstrate three consecutive months of compliant performance (although not necessarily the same three month period for each individual measurement result), and
- (2) The aggregate performance delivered (for the CLEC industry as a whole) demonstrates nondiscrimination for a minimum of the most recent three consecutive months of data used to support the application.

Concerns with Existing Proposals

AT&T and MCI WorldCom previously provided criticism of the recent BellSouth remedies proposals. Questions that the Commission should consider, when evaluating subsequent submissions, should include, among others, the following list:


- Does any proposed scoring serve to mask the magnitude of the performance failure (e.g., does a 2-day miss trigger the same score and remedy as a 120-day miss)?
- Does the plan only consider aggregate performance for the CLEC industry, thus allowing individual CLEC harms to occur without redress?

differences in performance. The ILECs have the data necessary to make such demonstrations, and their failure to put such information on the table can only be construed as a tacit admission that LCUG's proposed level of disaggregation is reasonable.

- Does the ILEC propose to overcompensate for performance failure due to random variation—i.e., try to excuse misses even when the chance of undetected discrimination is nearly three times greater than the chance of a Type I error?
- Does the ILEC propose to use a statistical methodology or to institute other allowances for benchmark violations when setting the benchmark in the first place (e.g., at 95% or 98%) already took into account the number of performance failures that would be tolerated?
- Does the proposal include mechanisms that delay prompt payment of remedies, for example, by either requiring root cause analysis or proof of clustering events?⁷

Finally, AT&T and MCI WorldCom stress that proper performance remedies are not only essential to prevent “backsliding” once a BOC is offering in-region long distance service, but also are necessary to open all ILECs’ local markets in the first instance.

Sincerely,


Karen T. Reidy

cc: Eric Einhorn
Jake Jennings
Andrea Kearney
Claudia Pabo
Daniel Shiman

⁷ An ILEC may dispute results, but use of alternative dispute resolution or other adjudication should come after the payment of self-executing remedies to CLECs. CLECs also should have the right to use these forums to prove that parity results were incorrect and remedies are due.

MCI WORLDCOM AND AT&T JOINT REMEDIES PROPOSAL

OVERVIEW

An Effective Remedy Plan Must Include:

- Consequences that are severe enough to encourage compliance with performance standards and deter misconduct, rather than merely become an ILEC cost of doing business.

Price reductions and bill credits are inadequate to serve as a deterrent for poor performance.

- Consequences that escalate based on both the magnitude and duration of poor performance.
- Additional consequences for industry-wide poor performance.
- Minimal automatic exclusion of measurements or underlying data points from remedies to prevent ILECs from engaging in targeted poor performance.
- Predetermined consequences that are applied without delay and expense.
- Payments to individual CLECs harmed based on performance failures per metric.

I. Ensuring Sufficient Consequences in order to Irreversibly Open Local Markets to Competition

- A. Rebates of recurring or non-recurring charges associated with failed performance provide insufficient incentive to ensure compliance with "parity" and "reasonable opportunity to compete" requirements. Remedies must:

1. Acknowledge that the impact of poor performance on competitors' reputation in market is immediate, long-lasting and extrapolated to all market participants.

2. Recognize that CLECs' ability to enter the market is gated by the reliability and quality of ILECs' operational processes and support systems.
 3. Address harm to CLEC customers' business that may result in liability for the CLEC.
- B. Curbing ILEC's Powerful Incentive To Protect Its Local Revenues Through Disabling Market Development. Remedy plans must:
1. Encourage ILEC to fix (not ignore) problems requiring OSS or network capacity capital, or human resource outlays.
 2. Reduce ILEC's ability and incentive to drive a competitor out of the market.
 3. Ensure that remedies apply on a per-measurement basis. Remedies based on aggregated combinations allow for targeted discrimination by the ILEC.
 4. Prohibit weighting and scoring methodologies, which provide opportunities to mask poor performance and frustrate independent monitoring.

II. Creating Self-Executing Remedies.

- A. For measures where the standard of performance is parity with analogous ILEC performance, remedies are applicable when the modified z parity scores are less than critical value.

A critical value of -1.04 should be used. At that value, the risk of Type I errors (false nonparity) and Type II errors (false parity) is equal at 15%. Since risk is equal for both types of errors, some substandard performance would be allowed, depending on the number of total measurements. A small level of forgiveness, such as CLECs have proposed in California of one every six months, may be appropriate. Conditions on when and where the forgiveness can be used are required to avoid gaming. If a higher statistical confidence level is used, the ILEC should not receive any further mitigation or forgiveness for random failures.

- B. Remedies must increase with magnitude, confidence, and duration of the miss (See Tables A and B for Parity and Benchmark measures).
- C. ILECs should be permitted to challenge the failed score, but must first pay the associated remedy to the CLEC, then pursue refund in a pre-defined dispute resolution process. CLEC may also use dispute resolution to challenge validity of parity scores.

D. No absolute caps should be set on ILEC liability, but a threshold may be established to trigger regulatory review (procedural cap). The threshold or procedural cap should be set high enough to avoid burdening CLECs with constant litigation to receive remedies due. (For example, the CLEC consensus proposal in California recommends a \$10 million monthly review threshold for the CLEC industry, excluding failures at chronic and severe levels.) Uncertainty about the amount at risk creates a greater incentive to fix problems. ILECs cannot easily weigh the cost of corrective action versus the cost of "worst case" remedy liability. Regulatory review options in dispute resolution include:

1. Regulator may decide to reduce remedy.
2. Regulator may excuse some of remedy if problem was promptly fixed.
3. Regulator may find remedies fully warranted.
4. Regulator may take additional action to stop discriminatory behavior.

E. Any Weighted Aggregation of Performance Results/Scoring Must Be Extremely Limited (i.e. the two categories below). Each Category May Employ Different Remedy Amounts (See Tables C and D).

1. Immediate Customer and Competition Affecting Measures: \$30,000 (base minimum) monthly per submetric failure.
2. Lagging Customer and Competition Affecting Measures: \$20,000 (base minimum) monthly per submetric failure.

F. Remedies of \$10,000 per day would apply to non-regulatory approved late reports; remedies of \$500 multiplied by each missing submetric would apply per day for incomplete reports; remedies of \$1000 per day would apply for late corrective action plan reports where they are applicable.

III. Accord greater consequences for greater certainty of disparity and magnitude of benchmark violations. A tiered approach satisfies these concerns.

A. Baseline Tier -- paid to CLEC for violations of parity (scores less than critical value) or missed benchmarks. Base minimum remedy applies (see Tables A and B). Remedies must be based on performance by submetric and by individual CLEC. State may set additional (but not alternative) remedies based on CLEC aggregate results. Remedy

scores should not be aggregated together, and any affiliate of the BOC should not be included in the CLEC aggregate calculations. Two factors to consider in determining consequences:

1. Magnitude: as the modified z score worsens, consequences increase.
2. Duration: as degraded performance continues, the consequences increase.

B. Market Suppression Tier -- paid to state-created fund for harms to CLEC industry in the aggregate.

1. ILEC cannot receive any benefit from the fund.
2. Fund could be used to pay for reporting audits.
3. Market Suppression Penalty Calculated:
 - a. Determine the number of times in the prior 3, 6, and 12 months that an overall discrimination finding resulted (ILEC compared to the aggregate CLEC industry). Use -1.645 critical factor or objective benchmark for metric.
 - b. Apply adjustments per number of occurrences below:

First occurrence:	\$0.50/access line/month
Second occurrence (in 12 mo. Pd.):	\$1.00/access line/month
Each additional occurrence beyond two in 12 months:	\$2.00/access line/month

III. Measurements

All measures below (See Tables C and D) should have remedies attached that are based on the ILEC's performance delivered to individual CLECs, for each submetric missed. Each metric must be sufficiently disaggregated by product, interface used, geographic area and certain other competitive factors, to prevent targeted discrimination.

- A. At a minimum, disaggregation must include resale products of similar intervals, UNE and UNE combinations reflecting various and differing business plans of CLECs—e.g., separate reporting on POTS loops, DSL 2-wire, DSL 4-wire, ISDN 2-wire and ISDN-4 wire loops, 4-wire digital loops, interoffice facilities, switch ports, UNE-P, Enhanced Extended Loops, trunks by capacity and traffic type (i.e. 911, SS7, transport) and collocations by type.
- B. Geographic disaggregation should be by at least MSAs or LATAs to reflect differences in performance and competition in different areas of the state (e.g., urban vs. other areas).

- C. OSS reporting should be disaggregated by all interface types currently used by CLECs, such as EDI, web GUI, electronic bonding, fax, etc.
- D. Other disaggregation by trouble type and disposition, type of CLEC center, order activity affecting intervals—new versus migration, dispatch and nondispatch, with LNP, number of lines/orders, and preordering and maintenance query type.

IV. 271 Compliance

Any misses for *Immediate Customer and Competition Affecting measurements* (Table C) must be closely examined by regulators.

A limited number of submetrics with deviations of a small magnitude may not be conclusive evidence of overall market suppressing behavior. The regulator must judge on a case-by-case basis whether misses of some of the metrics below for several large or many small CLECs should warrant refusal to grant or to revoke any existing 271 authority. The decision would be based on the magnitude, duration and pattern of poor performance (e.g., reports may indicate particularly poor performance for UNE-P or DSL submetrics, suggesting that the ILEC is targeting entry methods where CLECs are having some success).

The *Lagging Customer and Competition Affecting measurements* (Table D) may also be missed in sufficient quantity or levels of magnitude and duration to warrant a finding that a BOC is not in compliance with section 271 obligations. But there is less likely to be one or two failures that could suppress competition.

TABLE A:

MEASUREMENT FOR WHICH THE STANDARD IS PARITY			
Modified Z Scores:	One Month	Two Months	Three Months
0 to -.65	No Remedy	No Remedy	No Remedy
-.651 to -1.645	No Remedy	1.5X	3X
-1.646 to -2.326	X	1.5X	3X
-2.327 to -3.09	2X	3X	6X
-3.1 or less	3X	4.5X	9X

X = Base Remedy Amount for the specific metric

The modified z score ranges could be different, and the addition of more tiers with higher remedies for lower ranges would be acceptable. AT&T and MCI WorldCom advocate use of ranges of the modified z score.

TABLE B:

MEASUREMENTS FOR WHICH THE STANDARD IS A BENCHMARK			
Type	Base Remedy *	2Xs Base*	3Xs Base*
OSS Response Time	4 seconds to 6 seconds	7 seconds to 15 seconds	> 15 seconds
OSS Availability	98 to 99.4%	95 to 97.9%	< 94.9%
98% Standards	95% to 98%	90 to 94.9%	< 89.9%
95% Standards	90 to 94.9%	85 to 89.9%	< 84.9%
Other Percentage	Less Than 5%	5%-10% difference	10% or more difference
Mean Time To Restore	<10%	10% < 20%	> 20%
Trunk Blockage	1-2 groups miss standard	3-4 groups miss standard	>5 groups miss standard

* These remedies apply to first month performance misses, and are based on the magnitude of the miss. If the ILEC misses the benchmark for two months in a row, the appropriate base amount for the magnitude of the current month miss is multiplied by 1.5. The multiplier for three or more consecutive months of missed performance is 3 times the current month's miss.

The above chart is illustrative of instances where benchmarks are used but in most instances an analogous ILEC activity can be found to determine if parity exists. These steps can be expanded to increase remedies for more chronic and severe performance failures. AT&T & MCI WorldCom encourage implementation of remedies high enough to deter continuations of poor performance into a third month. But setting a limit on the maximum limit of poor performance may provide a perverse incentive for the ILEC—i.e. if performance is already less than 80% for the month, the ILEC will have no incentive to hold the line if the remedies due would not increase. The above table recognizes that

using only the same percentage difference may not reflect the same level of harm for each type of measurement—i.e. a 10% difference in completion intervals may not be as harmful as a 10% miss of OSS system availability.

TABLE C: IMMEDIATE CUSTOMER & COMPETITION AFFECTING MEASURES

ILEC pays CLEC \$30,000 for performance failures for each of the following performance measurements and all relevant submetrics:

Ordering and Provisioning:

Percent Due Dates Missed (Separately for both Standard Interval and Non-Standard)
Average Offered Interval
Mean Time to Respond (Collocation Space Availability)
Mean Time to Provide/Average Completion Interval (collos, trunks, all resale and UNE categories)
Delay Days - Trunks and collos
Held Orders (15/30/90 days) - other SDMs
Percent Troubles within 30 Days of Install and Other Order Activity
Provisioning Troubles Before Completion
Percent Service Loss from Late Cuts (translations)
Percent Service Loss from Early Cuts (facilities)
% Order Accuracy (CLEC Orders Rekeyed Accurately for Provisioning)
Average Update Interval - E911
Percent Update Accuracy - E911
Order Confirmation Interval & Timeliness
Completion Notice Interval & timeliness
Percent Jeopardies
Reject Interval
CLEC NXXs Loaded and Tested Before LERG effective date

Network Performance:

ILEC Response Interval to Trunk Resizing Requests - Reciprocal Trunks (inbound to CLEC)
% Trunk Blocking – final common and final dedicated

Maintenance and Repair:

Mean Time to Restore
Percent Customer Troubles Resolved within Estimate/Repair
Appointments Met
Trouble Rate
Repeat Trouble Rates
Percent out-of-service greater than 24 hours
Percent out of service greater than (1/4/8/12 hours) trunks

OSS Availability and Quality:

Percent Mechanized Order Flow Through
Percent System Availability
Average Interface Response Time - By type of preordering, ordering, maintenance, exchange access queries with errors/rejections and timeouts measured separately.
On Time Change Management Notice (NY) - by each type of change (1) emergency, (2) regulatory, (3) industry forum, (4) ILEC initiated and (5) CLEC initiated

Recording & Billing:

Mean Time to Provide Recorded Usage Records
Percent Invoice Accuracy and Completeness
Percent Usage Accuracy and Completeness
Percent Bill Errors (DUF) Corrected in X Days (AZ)

TABLE D: LAGGING CUSTOMER & COMPETITION AFFECTING MEASUREMENTS:

ILEC pays CLEC \$20,000 for performance failures for each of the following performance measurements and all relevant submetrics:

OSS/CLEC Service Centers:

Mean Time to Answer Calls (CLEC Help Centers)
Call Abandonment Rate (CLEC Help Centers)
Software Certification Testing (NY)
Average Notification of Interface Outage (CA/PA/NJ)

Ancillary Services:

Operator Services Mean Time to Answer

- On Time Response to Requests for Access to Poles, Conduits, ROWs (TX)
- On Time Response to Bona Fide Requests (TX)
- Time to Proof/Check ILEC corrections for Directory Listings
- Update Interval and Accuracy for DL/DA databases

Ordering and Provisioning:

- % Rejects (ILEC Caused)
- 10-Digit Trigger is Applied X Days Prior to the LNP Order Due Date (TX metric-on using precaution against Customer service disruptions in hot cuts)
- Percent Completions/Attempts without Notice or with Less than 24 OR % CNR for Late FOC or Other ILEC reason (LCUG - NY/PA/NJ)

Maintenance:

- Mean Time to Notify CLEC (Network Disruption/Restorals Affecting Customers)
- Mean Jeopardy Interval for Maintenance and Trouble Handling

Billing:

- Mean Time to Deliver Invoices

E. EXCLUSION ERRORS

Remedies may be pursued if review of raw data shows wrongful exclusion of data for which inclusion would have shown a performance failure – e.g., errors in coding for FOK/TOK/CPE (found OK, test OK, trouble in CPE) led to excluding CLEC trouble reports from relevant metrics.

REMEDY LEVELS:

The ILEC has the ultimate control over how much is paid. CLECs have agreed to exclusions of all CLEC-caused reasons for performance failures. CLECs have agreed to statistical critical values or performance benchmark levels with percentages of expected compliance that allow some misses without remedies. The review cap will enable regulators to examine whether extremely high remedies are justified in light of the performance received. AT&T and MCI WorldCom recommend that the FCC only endorse self-

executing remedy plans with remedies in compliance with the principles in this document.

The remedy amounts are intended to take into account the cost-benefit analysis the ILECs will undertake, such as the cost of adding personnel, process improvement and training, or capital outlays for OSS or network capacity improvements. Even the remedies proposed above may fall short in the goal of providing an adequate deterrent to an ILEC concluding that paying the remedy is the best economic choice. The ILEC may decide not to spend more money only to improve a competitor's performance for existing customers (e.g., no trunk blocking) and enable growth beyond existing customers. The remedies are intended to take into account the ILEC incentive to prevent competitors from taking away the customer and associated revenues. The remedy levels must be revisited to gauge their deterrent affect if the CLEC's bill for inferior service(s) is actually higher than the base remedies proposed.